A. CLASSIFICATION OF SUBJECT MATTER Int.Cl' C22C38/00, G02B6/44, H01B7/14, 7/18, 11/22			
According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) Int.Cl ⁷ C22C38/00, G02B6/44, H01B7/14, 7/18, 11/22			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2003 Kokai Jitsuyo Shinan Koho 1971-2003 Jitsuyo Shinan Toroku Koho 1996-2003			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)			
	MENTS CONSIDERED TO BE RELEVANT	annoniate of the relevant passages	Relevant to claim No.
Category*	Citation of document, with indication, where a		
A	JP 8-296008 A (Nippon Steel 12 November, 1996 (12.11.96) Full text (Family: none)		1-2
A	JP 6-158225 A (Nippon Steel 07 June, 1994 (07.06.94), Full text (Family: none)	Corp.),	1-2
A	JP 60-164715 U (Showa Denser Ol November, 1985 (01.11.85) Full text (Family: none)		1-2
Further documents are listed in the continuation of Box C.		See patent family annex.	
Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
than the priority date claimed		"&" document member of the same patent fa	mity
	ciual completion of the international search oril, 2003 (14.04.03)	Date of mailing of the international search report 30 April, 2003 (30.04.03)	
Name and mailing address of the ISA/ Japanese Patent Office		Authorized officer	
Facsimile No.		Telephone No.	